

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of Old National Pike and Boyers Mill Road in Frederick County, Maryland. Old National Pike is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA three (3) phase, full-traffic-actuated mode. The Old National Pike movements shall operate concurrently. The Boyers Mill Road movement shall operate alone.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and (1) four-channel rack mounted time delay output loop detector amplifier housed in a pole mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be supplied by the MD-SHA and installed by the Contractor.

NONE

B. Equipment to be furnished and/or installed by the Contractor.

All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Item No.	Quantity	Units	Description
1001	1	LS	Maintenance of traffic per assignment.
2001	1	CY	Test pit excavation.
5002	170	LF	5 in. white HAPPTPM.
5004	60	LF	24 in. white HAPPTPM.
5006	2	EA	Pavement marking arrow HAPPTPM.
5007	280	LF	Remove existing pavement markings.
8001	2.65	CY	Concrete for signal foundations.
8006	1	EA	Clean, cut, galvanize, and cap traffic signal structure.
8017	2	EA	Install micro-loop probe set with 1000 ft. lead-in.
8019	1	EA	Install controller and cabinet - pole mount.
8021	300	LF	Sawcut for signal loop detector.
8023	30	LF	1 in. liquid tight flexible non-metallic conduit - sleeve.
8024	850	LF	2 in. (Schedule 80) PVC electrical conduit - trenched.
8026	120	LF	2 in. (Schedule 80) PVC electrical conduit - bored.
8030	25	LF	4 in. (Schedule 80) PVC electrical conduit - trenched.
8032	90	LF	4 in. (Schedule 80) PVC electrical conduit - bored.
8033	9	LF	Electrical handhole.
8034	1	EA	Ground rod (3/4 in. x 10 ft. length).
8040	900	EA	Loop detector wire encased in flexible tubing (No. 14 AWG).
8041	250	LF	Electrical cable - 2-conductor (aluminum shielded).
8044	90	LF	Electrical cable - 5-conductor (No. 14 AWG).
8045	175	LF	Electrical cable - 7-conductor (No. 14 AWG).
8046	40	LF	Electrical cable - 2 conductor (No. 12 AWG) Type in TC in.
8048	15	LF	Stranded bare copper ground wire (No. 6 AWG).
8049	60	LF	Electrical cable - 1 conductor (No. 4 AWG) - THHN/THWN
8051	64	EA	Wood sign supports 4 in. x 6 in.
8052	44.5	SF	Install ground mounted sign.
8053	36.25	SF	Install overhead sign.
8055	1	EA	Luminarie - 250 watt HPS with photocell.
8056	1	EA	15 ft. lighting arm.
8066	1	EA	Control and distribution equipment (120/240, 1 phase, 3 wire).
8080	1	EA	27 ft. mast arm pole and twin 50 ft. mast arms.
8084	18	EA	12 in. black faced vehicular traffic signal head section.
---	1	EA	Pole mounted Cabinet (Size 5) with intersection monitor, ASC II Controller w/telemetry, and one 4 channel rack mounted loop detector.
---	59.5	SF	Flat sheet aluminum sign - yellow, orange, or silver. 1 each - 30 in. x 36 in. R 3-5(R) sign - mast arm. 1 each - 30 in. x 36 in. R 3-5(L) sign - mast arm. 2 each - 48 in. x 48 in. W 3-3 sign - ground. 2 each - 30 in. x 30 in. D 95-25 "NEW" Panel - ground.
---	32	SF	Flat sheet aluminum sign - blue or green. 1 each - 16 in. x Var. D-3(1) (dual-faced) sign - under mast arm. 1 each - 16 in. x Var. D-3(1) sign - mast arm.
---	2	EA	Remove existing sign and post.

C. All equipment and/or material removed and not listed above shall become the property of the Contractor.

CONTACT LIST

The contact persons for District #7 are as follows:

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Frederick County Traffic Engineering
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Mr. John Concannon
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Mr. Jim Buckalew
Assistant District Engineer - Utility
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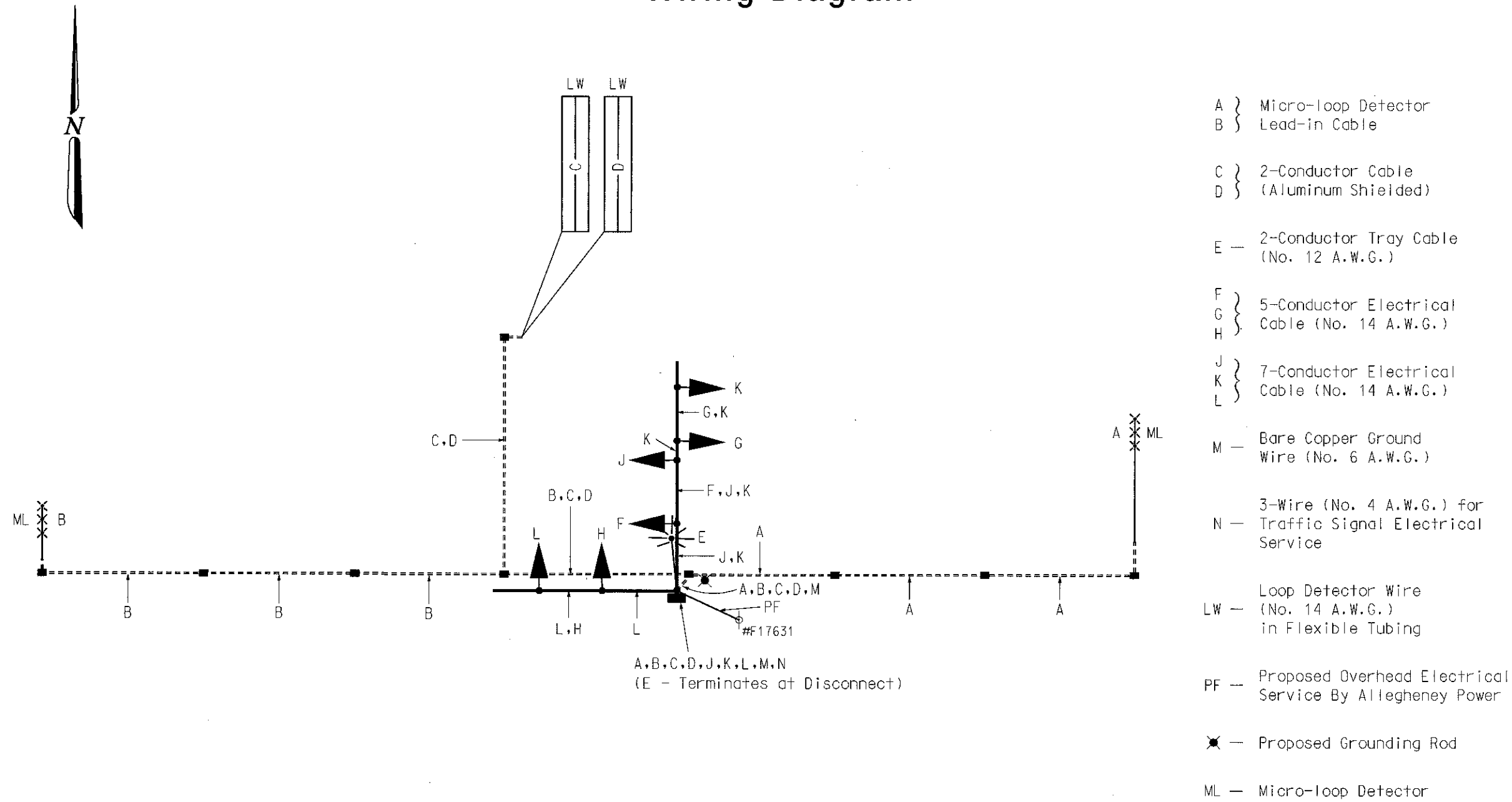
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Allegheny Power Company
421 E. Patrick Street
Frederick, Maryland 21701
1-800-255-3443

Phase Chart

	1	2	3	4	5	6	
	R	R	R	R	R	R	
	Y	Y	Y	Y	Y	Y	
	G	G	G	G	G	G	
Phase 2 & 6	G	G	G	G	R	R	→
2 & 6 Change	Y	Y	Y	Y	R	R	←
Phase 4	R	R	R	R	G	G	
4 Change	R	R	R	R	Y	Y	↓
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↑ ↓

Wiring Diagram



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
Old National Pike at Boyers Mill Road

DRAWN BY: F. Brownley	F.A.P. NO. N/A	TS NO. 4170	SHEET NO. 2 OF 2
CHECKED BY: N/A	S.H.A. NO. BW435 M83		
SCALE: N/A	COUNTY: Frederick	T.I.M.S. NO. F086	
DATE: March 28, 2002	LOG MILE: 10014400.00		